

E1 interface and a second axis of the three dimensional interface and a second input for selecting an axis display parameter for a third axis of the three dimensional interface, the user interface module [further processing] selecting a portion of the pre-processed financial information as a function of the [at least one financial category] non-integer terrain parameters and the axis display parameter; and

a virtual reality generator module coupled to the input module and the user interface module, the virtual reality generator generating, continuously modifying, and displaying on a display device a virtual reality world being [a] the three dimensional interface that enables a user to simulate movement through and interact with the pre-processed financial information, the virtual reality world representing [the further processed] selected portion of the pre-processed financial information[;].

wherein when the user simulates movement through and interacts with the pre-processed financial information, a user viewing the display device has a sensation of traveling through and within the virtual reality world.

E2 2. (Twice Amended) The virtual reality generator of claim 1, ~~85~~ wherein the [further processed] selected portion of pre-processed financial information is displayed as a plurality of metaphors in the virtual reality world.

E3 3. (Twice Amended) The virtual reality generator of claim 1, wherein the user interface module further includes a third input for selecting at least one [financial indicator] display parameter, and wherein at least a subset of the plurality of metaphors is [selected to rotate] displayed as a function of a predetermined one of the at least one [financial indicator] display parameter[, each metaphor in the subset generated by the virtual reality generator module such that it rotates].

E4 4. (Twice Amended) The virtual reality generator of claim [85] 92 wherein the axis display parameter and the at least

~~E4~~ ~~contn~~ one display parameter [includes] represent attributes of financial instruments.

~~E5~~ ~~13~~ (Twice Amended) The virtual reality generator of claim ~~86~~ ~~12~~ ~~13~~ wherein the virtual reality world represents the pre-processed financial information for a single industry and each sub-region represents the pre-processed financial information for the single industry in one of a plurality of markets.

~~14~~ ~~15~~ (Twice Amended) The virtual reality generator of claim ~~85~~ ~~11~~ wherein the virtual reality world includes a plurality of metaphors representing a plurality of stocks, each one of the plurality of metaphors being generated as a function of the [at least one financial category] non-integer terrain parameters and the axis display parameter.

~~E6~~ ~~6~~ (Twice Amended) The virtual reality generator of claim ~~87~~ ~~12~~ wherein the user interface module includes means for selecting one of the plurality of metaphors and wherein the virtual reality generator module includes means for displaying information relating to the selected one of the plurality of metaphors as a function of the at least one [financial indicator] display parameter.

~~E7~~ ~~21~~ (Twice Amended) A virtual reality generator to generate and display on a display device a stream of pre-processed financial information received from a financial analytic system, the virtual reality generator comprising:

an input module to continuously receive the stream of pre-processed financial information from the financial analytic system, the financial analytic system generating the pre-processed financial information as a function of predetermined financial analytics on real-time and pre-stored financial data;

a user interface module having a first input for selecting [at least one financial category] a non-integer terrain parameter for each of a first axis of a three

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dimensional interface and a second axis of the three dimensional interface and a second input for selecting an axis display parameter for a third axis of the three dimensional interface, the user interface module [further processing] selecting a portion of the pre-processed financial information as a function of the [at least one financial category] non-integer terrain parameters and the axis display parameter; and

a virtual reality generator module coupled to the input module and the user interface module, the virtual reality generator generating and displaying a virtual reality world on the display device, the virtual reality world being a [multi] three-dimensional representation of the stream of the pre-processed financial information displayable from a plurality of user selected perspectives to enable a user to simulate movement through the virtual reality world such that the user has a sensation of travelling through and within the virtual reality world, the virtual reality generator module including:

([I]i) means for generating and continuously modifying the virtual reality world so that the virtual reality world correspondingly represents the stream of [further processed] the selected portion of the pre-processed financial information,

(ii) means for causing the virtual reality world to be displayed on the display device, and

(iii) means for simulating, on the display device, movement through the virtual reality world such that the user viewing the display device has a sensation of travelling through and within the virtual reality world.

E8 23
106. (Twice Amended) A virtual reality generator to display on a display device pre-processed financial information, the virtual reality generator comprising:

an input module to receive the pre-processed financial information as input, the pre-processed financial information including real-time data and pre-stored data;

a user interface module having a first input for

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selecting [at least one financial category] a non-integer terrain parameter for each of a first axis of a three dimensional interface and a second axis of the three dimensional interface and a second input for selecting an axis display parameter for a third axis of the three dimensional interface, the user interface module [further processing] the selected portion of the pre-processed financial information as a function of the [at least one financial category] non-integer terrain parameters and the axis display parameter; and

a virtual reality generator module coupled to the input module and the user interface module, the virtual reality generator generating and displaying a virtual reality world on the display device, the virtual reality world being a [multi] three-dimensional representation of the [further processed] selected portion of the pre-processed financial information continuously displayed from a plurality of user selected perspectives to enable a user to simulate movement through the virtual reality world such that the user has a sensation of travelling through and within the virtual reality world, the virtual reality generator module including

([I]i) means for generating the virtual reality world representing the [further processed] selected portion of the pre-processed financial information,

(ii) means for causing the virtual reality world to be displayed on the display device from a plurality of perspectives, and

(iii) means for simulating, on the display device, movement through the virtual reality world such that the user viewing the display device has a sensation of travelling through and within the virtual reality world.

E9 2332
115. (Twice Amended) The virtual reality generator of claim 106, wherein the user interface module further includes a third input for selecting at least one [financial indicator] display parameter, and wherein the virtual reality world includes a plurality of metaphors, each one of the plurality

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of metaphors representing a subset of the selected portion of
the pre-processed financial information.

E10 35 (Twice Amended) A virtual reality generator to display on a display device pre-processed financial information as a virtual reality world, the virtual reality world being an interface that enables a user to simulate movement through the pre-processed financial information, the virtual reality generator comprising:

means for receiving as input in real-time the pre-processed financial information from a data source of pre-processed financial information, the data source providing real-time and pre-stored data;

a user interface module having a first input for selecting [at least one financial category] a non-integer terrain parameter for each of a first axis of a three dimensional interface and a second axis of the three dimensional interface and a second input for selecting an axis display parameter for a third axis of the three dimensional interface, the user interface module [further processing] selecting a portion of the pre-processed financial information as a function of the [at least one financial category] non-integer terrain parameters and the axis display parameter; and

a virtual reality generator module coupled to the input module and the user interface module, the virtual reality generator generating and displaying a virtual reality world on the display device, the virtual reality world being a [multi] three-dimensional representation of the pre-processed financial information displayable from a plurality of user selected perspectives to enable a user to simulate movement through the virtual reality world such that the user has a sensation of travelling through and within the virtual reality world, the virtual reality generator module including means for:

([I]i) generating, in real-time as the [further processed] selected portion of the pre-processed financial information is received from the real-time

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data source of financial information, the virtual reality world representing the pre-processed financial information,

(ii) displaying in real-time on the display device the virtual reality world representing the [further processed] selected portion of the pre-processed financial information,

(iii) displaying the virtual reality world from a plurality of perspectives, and

(iv) simulating in real-time, on the display device, movement through the virtual reality world.

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E 11 ~~35~~

121. (Twice Amended) The virtual reality generator of claim 118, wherein the [further processed] selected portion of the pre-processed financial information is displayed as a plurality of metaphors in the virtual reality world.

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122. (Twice Amended) A virtual reality generator, comprising: an input module to receive packets of pre-processed financial information at regular predetermined intervals, the pre-processed financial information being generated as a function of real-time and pre-stored financial data;

a user interface module having a first input for selecting [at least one financial category] a non-integer terrain parameter for each of a first axis of a three dimensional interface and a second axis of the three dimensional interface and a second input for selecting an axis display parameter for a third axis of the three dimensional interface, the user interface module [further processing] selecting a portion of the pre-processed financial information as a function of the [at least one financial category] non-integer terrain parameters and the axis display parameter;

display means coupled to the input module and the user interface module, the display means for displaying on a display device a virtual reality world generated from the packets of the [further processed] selected portion of the pre-processed financial information, the virtual reality world

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being a [multi] three-dimensional representation of the packets of the [further processed] selected portion of the pre-processed financial information continuously displayed from a plurality of user selected perspectives to enable a user to simulate movement through and interact with the virtual reality world such that the user, when viewing the display device, has a sensation of travelling within the virtual reality world; and

processing means for updating the virtual reality world when a new packet of pre-processed financial information is received by the input module.

~~124~~ 124. (Twice Amended) A computer-based method for displaying and manipulating large quantities of pre-processed financial information, the method comprising the steps of:

receiving as input the pre-processed financial information, the pre-processed financial information being generated as a function of real-time and pre-stored data;

selecting [at least one financial category] a non-integer terrain parameter for each of a first axis of a three dimensional interface and a second axis of the three dimensional interface and an axis display parameter for a third axis of the three dimensional interface;

selecting a portion of [further processing] the pre-processed financial information as a function of the [at least one financial category] non-integer terrain parameters and the axis display parameter for display[, the further processed financial information being selected for display];

generating a virtual reality world from the [further processed] selected portion of the pre-processed financial information [selected for display], the virtual reality world being a [multi] three-dimensional representation of the pre-processed financial information capable of being displayed from a plurality of user selected perspectives to enable a user to simulate movement through the virtual reality world; and

displaying on a display device the virtual reality world

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as [a multi] the three-dimensional [computer-generated] interface that enables simulation of movement through and interaction with the pre-processed financial information such that the user, when viewing the display device, has a sensation of travelling through and within the pre-processed financial information displayed as the virtual reality world.

125. (Twice Amended) A computer implemented method for displaying and manipulating pre-processed financial information, the method comprising the steps of:

continuously receiving as input packets of the pre-processed financial information, the pre-processed financial information including real-time and pre-stored data;

selecting [at least one financial category] a non-integer terrain parameter for each of a first axis of a three dimensional interface and a second axis of the three dimensional interface and an axis display parameter for a third axis of the three dimensional interface;

selecting a portion of [further processing] the pre-processed financial information as a function of the [at least one financial category] non-integer terrain parameters and the axis display parameter for display, the further processed financial information being selected for display;

generating, utilizing a computer processor, a virtual reality world from the packets of pre-processed financial information, the virtual reality world representing the [further processed] selected portion of the pre-processed financial information and capable of being displayed from a plurality of perspectives to enable a user to simulate movement through the virtual reality world;

displaying the virtual reality world as a three-dimensional representation on a display device such that a user can simulate movement through the pre-processed financial information;

updating, utilizing the computer processor, the virtual reality world on the display device when the [further processed] selected portion of the pre-processed financial

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information is received; and

simulating movement through the virtual reality world on the display device such that the user, when viewing the display device, has a sensation of travelling through and within the virtual reality world.

Please add new claims 126 and 127 as follows:

~~20~~ 126. (New) The virtual reality generator of claim ~~85~~, wherein the non-integer terrain parameter includes one of an industry group, a country, a market and a type of financial instrument.

~~5~~ 127. (New) The virtual reality generator of claim ~~92~~, wherein the at least one display parameter displays the subset of the plurality of metaphors via one of a flashing, a spinning, a rotation, a shaping, a coloring and a texturing of the subset of the plurality of metaphors. --- 3

Remarks

I. General

Claims 126 and 127 have been added. Claim 93 has been canceled, without prejudice. Therefore, claims 85-92 and 94-127 are pending in the above-identified application. Claims 85, 87, 92, 94, 97-98, 102, 104, 106, 108, 115, 118, 121 and 123-125 have been amended. No new matter has been added.

II. The Rejections Under 35 U.S.C. § 103 Should Be Withdrawn

Reconsideration is requested of the rejection of claims 85-125 under 35 U.S.C. § 103 as being unpatentable over Cyberarts: Lanier of VPL on "Voomies" by Rohrbough (the "Rohrbough article") and Virtual Reality: a status report by Jacobson (the "Jacobson article"), in further view of Virtual reality offers growing opportunity for risk takers by Hindus (the "Hindus article"), Virtual Reality is almost real by Saffo (the "Saffo article"), PV-wave for Financial